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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,904	03/07/2005	Yoshitaka Koshiro	262326US0X PCT	7852

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EXAMINER

GILLESPIE, BENJAMIN

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/526,904	KOSHIRO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Benjamin J. Gillespie	1711	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/7/2005</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 12-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant needs to provide correlation of foreign test standards to U.S. test standards or provide English translations of the foreign test standards.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 13-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The dependency of claims 13-17 on of claim 1 renders the claims 13-17 indefinite because claim 1 is canceled.
3. In view of applicants' disclosure, the molecular weight of the low molecular weight diol is considered to be no greater than 250.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 12-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Vedula ('059). Patentee discloses a thermoplastic polyurethane comprising a diol with a high average molecular weight of 2,000-5,000 which overlaps applicants' range of 600-4000 and consisting of a polytetramethylene ether glycol, a low molecular weight diol consisting of hydroquinone di( $\beta$ -hydroxyethyl)ether which is chemically synonymous with 1,4-bis(hydroxyethoxy)benzene, and a polyisocyanate consisting of 4,4-diphenylmethane diisocyanate (MDI). See column 1 lines 54-55, column 5 lines 39-40; column 2 lines 43-44; and column 2 lines 23-24.

Patentee further discloses rebound values of at least 60 percent and preferably at least 70, overlapping applicants' range of 50 to 90%. Patentee discloses hysteresis loss at 23°C, examiner takes the position that impact resilience values were measured at the same temperature. It can be concluded that since structure and impact resilience at 23°C are shared, then the thermoplastic polyurethane inherently shares the same properties as claimed of 0.6 times the impact resilience of 23°C at 0°C. See column 3, lines 45-50.

Patentee discloses preferable ranges of glycol chain extender to be about 0.7-1.0 mole per mole of the hydroxyl terminated polyether, and diisocyanates to be about 0.98-1.03 moles per total moles of hydroxyl terminated polyether and hydroxyl terminated chain extenders. Using these relationships in claim 13, the ranges for chain extender hydroquinone di( $\beta$ -hydroxyethyl)ether (198.219 g/mol) and diisocyanate MDI (250.25 g/mol), are calculated to be 10-20 and 25-50 respectively, overlapping applicants' ranges of 11-42 and 39-76 for 100 parts by weight of 1000-2000 high molecular weight diol.

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Similarly in claim 14, using the relationships given above, the ranges for chain extender hydroquinone di( $\beta$ -hydroxyethyl)ether (198.219 g/mol) and diisocyanate MDI (250.25 g/mol), are calculated to be 16-25 and 42-62.5 respectively, overlapping applicants' ranges of 20-30 and 50-60 for 100 parts by weight of 800-1200 high molecular weight diol. See column 2 lines 50-60.

Finally patentee discloses the thermoplastic polyurethane to be utilized in the composition of a golf ball. Column 11, lines 22-23.

### *Conclusion*


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin J. Gillespie whose telephone number is 571-272-2472. The examiner can normally be reached on 8am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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BJG

  
**RABON SERGENT**  
**PRIMARY EXAMINER**